USDA, SCS
SECTION II-E
Technical Guide
Area 18

SALTY BOTTOMLAND
DESERT GRASSLAND
RANGE SITE DESCRIPTION

1. TOPOGRAPHY AND ELEVATION: This site occupies nearly level flood plains and intermittent draws. Some areas are flooded only when abnormal rainfall occurs. Elevations range from 2,400 to 3,000 feet.

2. SOILS:

   a. Soils of this site are moderately to strongly saline fine sandy loams, loams, clay loams, silty clays and clays. The subsoils range from fine sandy loam to clay and are usually stratified with textures of loamy fine sand to clay. These soils are moderately to very slowly permeable and have fair to poor plant-soil-air-moisture relationships, depending on the soil salinity. Some areas have a water table which may influence plant growth.

   b. Some soil taxonomic units which characterize this site are:

      Arno clay, saline
      Balmorhea silty clay loam, saline
      Gila fine sandy loam, saline
      Harkey loam, saline
      Patrole silt loam
      Pecos silty clay
      Toyah clay loam, saline

   c. Specific site location:

3. CLIMAX VEGETATION:

   a. The climax plant community is dominated by salt tolerant grasses in association with salt tolerant shrubs and halophytic forbs. Species composition and production varies with degree of salinity, soil textures, and amount of overflow.

RELATIVE PERCENTAGE

Grasses 70%		Woody 20%		Forbs 5%	
Alkali sacaton	45	Fourwing saltbush	15	Pickleweed	)
Giant sacaton	10			Purslane	)
Twoflower trichloris	10	Mesquite	)	Dock	) 5
		Salt cedar	)5	Pepperweed	)
Inland saltgrass	)	Iodiacbush	)	Annuals	)
Vine-mesquite	)				
White tridens	)5				
Plains bristlegrass	)				
Sand dropseed	)				

b. As retrogression occurs, grasses decrease and are replaced by bare ground, pickleweed, and annual helophytes. Mesquite invades readily and becomes quite dense. Salt cedar invades along stream channels or in areas of high water table.

c. Total annual production of this site in excellent condition ranges from 500 pounds per acre in poor years to 1300 pounds per acre of air-dry herbage in good years.

4. WILDLIFE NATIVE TO THE SITE: Dove and quail are the principal wildlife species of this site. Deer are seen occasionally but are not considered numerous.

5. ESTHETICS AND RELATED VALUES: Due to salinity, few colorful forbs are found, and of the plants that are adapted, very few are colorful. Area appears brushy because of high density of shrubs on most sites. As salinity increases, area has barren appearance because of large salted out areas.

6. HYDROLOGIC CHARACTERISTICS: Even though these soils occupy level flood plains, runoff can be high because of very slowly permeable soils. Runoff usually carries heavy silt load from areas of insufficient plant cover and deposits silt on areas of good plant cover. Gully erosion may occur where runoff enters draws and streams.

7. GUIDE TO INITIAL STOCKING RATE:

a.

Condition Class	Climax Vegetation	AC/AU/YL	AU/SEC/YL
Excellent	76-100	20-30	21-32
Good	51-75	30-50	13-32
Fair	26-50	50-70	9-13
Poor	0-25	70-120	5-9

b. Introduced Species

Kleingrass, lovegrass, blue panicum - only on selected soils with lower salinity, soil texture of loams to fine sandy loams, and areas that receive extra run-in water.

	100-76	75-51	50-26	25-0
Ac/AU	10-15	15-20	20-30	30+

c. Seeded Areas

	100-76	75-51	50-26	25-0
Ac/AU	10-15	15-20	20-30	30+

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. Cattle

Primary	Secondary	Low Value
Alkali sacaton	Inland saltgrass	Mesquite
Giant sacaton	Sand dropseed	Fourwing saltbush
Twoflower trichloris		Annuals
Plains bristlegrass		Salt cedar
Vine-mesquite		Woody plants
White tridens		

b. Deer

Primary	Secondary	Low Value
Fourwing saltbush	Plains bristlegrass	Other grasses
Forbs	Mesquite	Salt cedar

c. Dove and Quail

Primary	Secondary	Low Value
Seed of:	Seed of:	Fluffy grass seed
Vine-mesquite	Giant sacaton	
Plains bristlegrass	Alkali sacaton	
Mast of woody, hard seeded forbs		
Sand dropseed		

1/ Definitions of terms and an explanation of interpretation is given on a separate page which is attached or submitted with each group of range site descriptions.